

CLAIM LISTING

1. (Currently Amended) A composition for delivering an agent to a target neoplastic cell of a solid tumor expressing a neoplasm-specific antigen, comprising:
 - (a) [a] an attenuated Salmonella microorganism that has, on its [cell] surface, at least one exogenous molecule antibody or fragment thereof that binds to [an] a neoplasm-specific antigen on the surface of a target neoplastic cell of a solid tumor; and
 - (b) an agent.
2. (Cancelled)
3. (Cancelled)
4. (Cancelled)
5. (Currently Amended) The composition of ~~claim 4~~ claim 1, wherein the Salmonella is Salmonella typhimurium VNP20009 or Salmonella typhimurium SL7207.
6. (Currently Amended) The composition of claim 1, wherein the microorganism Salmonella expresses the exogenous molecule antibody or fragment thereof.
7. (Currently Amended) The composition of claim 6, wherein the microorganism Salmonella transiently expresses the exogenous molecule antibody or fragment thereof.
8. (Cancelled)
9. (Cancelled)
10. (Cancelled)
11. (Currently Amended) The composition of ~~claim 10~~ claim 1, wherein the antibody is a mammalian antibody.

12. (Original) The composition of claim 11, wherein the antibody is a human antibody.
13. (Currently Amended) The composition of ~~claim 10~~ claim 1, wherein the antibody is a chimeric antibody.
14. (Original) The composition of claim 13, wherein the chimeric antibody is a humanized antibody.
15. (Currently Amended) The composition of ~~claim 10~~ claim 1, wherein the antibody is a single-chain antibody.
16. (Cancelled)
17. (Cancelled)
18. (Currently Amended) The composition of ~~claim 17~~ claim 1, wherein the solid-tumor [cell] is a colon-tumor [cell].
19. (Currently Amended) The composition of ~~claim 16~~ claim 1, wherein the neoplastic cell is a carcinoembryonic-antigen- (CEA)-expressing cell.
20. (Currently Amended) The composition of ~~claim 19~~ claim 1, wherein the CEA-expressing neoplastic cell is selected from the group consisting of a bowel cancer cell, a breast cancer cell, a cervical cancer cell, a colon cancer cell, an esophageal cancer cell, a head cancer cell, a liver cancer cell, a lung cancer cell, a neck cancer cell, an ovarian cancer cell, a pancreatic cancer cell, and a stomach cancer cell.
21. (Currently Amended) The composition of ~~claim 20~~ claim 19, wherein the CEA-expressing cell is a colon cancer cell.
22. (Cancelled)
23. (Currently Amended) The composition of ~~claim 16~~ claim 1, wherein the antigen is selected from the group consisting of CAK1, CDK4, CDR2, carcinoembryonic antigen

(CEA), disialoganglioside GD2, HER-2, large external antigen (LEA), MAGEs, MUC1, p21, podocalyxin, Ras, UK114, and WT1.

24. (Original) The composition of claim 23, wherein the antigen is a CEA.
25. (Original) The composition of claim 1, wherein the agent is selected from the group consisting of a diagnostic agent, a labelling agent, a preventive agent, and a therapeutic agent.
26. (Currently Amended) The composition of ~~claim 25~~ claim 1, wherein the ~~therapeutic~~ agent ~~is selected from the group consisting of~~ comprises an anti-tumor compound, ~~a lipid~~, a nucleic acid, ~~a polypeptide, a polysaccharide, and a pro-drug or a pro-drug of an anti-tumor compound~~.
27. (Currently Amended) The composition of claim 26, wherein the nucleic acid ~~is a plasmid~~ comprises a plasmid encoding a polypeptide selected from the group consisting of an anti-proliferation factor, an immuno-enhancing factor, a pro-apoptotic factor, and a pro-drug converting enzyme.
28. (Cancelled)
29. (Currently Amended) The composition of ~~claim 27~~ claim 26, wherein the nucleic acid comprises a plasmid comprising at least one gene silencing cassette plasmid ~~is an expression plasmid~~.
30. (Cancelled)
31. (Cancelled)
32. (Cancelled)
33. (Currently Amended) A method for treating neoplasia in a subject in need of treatment, the method comprising:

- a) administering to the subject a therapeutic composition in an amount effective to treat the neoplasia, wherein the therapeutic composition comprises:
 - i. [a] an attenuated Salmonella microorganism that has, on its ~~cell~~ surface, at least one exogenous molecule antibody or fragment thereof that binds to [an] a neoplasm-specific antigen on the surface of a neoplastic cell of a solid tumor in the subject; and
 - ii. a therapeutic agent;
 - b) binding of the attenuated Salmonella to the neoplastic cell; and
 - c) infecting the neoplastic cell.
34. (Cancelled)
35. (Currently Amended) The method of ~~claim 34~~ claim 33, wherein the solid tumor is a colon tumor.
36. (Currently Amended) The method of ~~claim 35~~ claim 33, wherein the solid tumor expresses carcinoembryonic antigen (CEA).
37. (Currently Amended) The method of ~~claim 36~~ claim 33, wherein the solid tumor is selected from the group consisting of a bowel tumor, a breast tumor, a cervical tumor, a colon tumor, an esophageal tumor, a head tumor, a liver tumor, a lung tumor, a neck tumor, an ovarian tumor, a pancreatic tumor, and a stomach tumor.
38. (Cancelled)
39. (Cancelled)
40. (Cancelled)
41. (Cancelled)

42. (Currently Amended) The method of ~~claim 41~~ claim 33, wherein the Salmonella is *Salmonella typhimurium* VNP20009 or *Salmonella typhimurium* SL7207.
43. (Currently Amended) The composition of claim 33, wherein the ~~microorganism~~ Salmonella expresses the ~~exogenous molecule antibody or fragment thereof~~.
44. (Currently Amended) The composition of claim 43, wherein the ~~microorganism~~ Salmonella transiently expresses the ~~exogenous molecule antibody or fragment thereof~~.
45. (Cancelled)
46. (Cancelled)
47. (Cancelled)
48. (Currently Amended) The method of ~~claim 47~~ claim 33, wherein the antibody is a mammalian antibody.
49. (Original) The method of claim 48, wherein the antibody is a human antibody.
50. (Currently Amended) The method of ~~claim 47~~ claim 33, wherein the antibody is a chimeric antibody.
51. (Original) The method of claim 50, wherein the chimeric antibody is a humanized antibody.
52. (Currently Amended) The method of ~~claim 47~~ claim 33, wherein the antibody is a single-chain antibody.
53. (Cancelled)
54. (Original) The method of claim 33, wherein the antigen is selected from the group consisting of CAK1, CDK4, CDR2, carcinoembryonic antigen (CEA), disialoganglioside GD2, HER-2, large external antigen (LEA), MAGEs, MUC1, p21, podocalyxin, Ras, UK114, and WT1.

55. (Original) The method of claim 54, wherein the antigen is a CEA.
56. (Currently Amended) The method of claim 33, wherein the therapeutic agent ~~is selected from the group consisting of~~ comprises an anti-tumor compound, ~~a lipid~~, a nucleic acid, a polypeptide, a polysaccharide, and a pro-drug or a pro-drug converting enzyme of an anti-tumor compound.
57. (Cancelled)
58. (Cancelled)
59. (Cancelled)
60. (Currently Amended) The composition of ~~claim 57~~ claim 56, wherein the nucleic acid comprises a plasmid comprising at least one gene silencing cassette plasmid is an expression plasmid.
61. (Cancelled)
62. (Cancelled)
63. (Cancelled)
64. (Cancelled)
65. (Currently Amended) A method for treating neoplasia in a subject in need of treatment, the method comprising:
 - a) administering to the subject a therapeutic composition in an amount effective to treat the neoplasia, wherein the therapeutic composition ~~consists of~~ comprises [a] an attenuated Salmonella microorganism that has, on its ~~cell~~ surface, at least one exogenous molecule antibody or fragment thereof that binds to [an] a neoplasm- specific antigen on the surface of a neoplastic cell of a solid tumor in the subject;

- b) binding of the attenuated Salmonella to the neoplastic cell; and
- c) infecting the neoplastic cell.